

**METHOD OF MEASURING A PHYSICAL FUNCTION USING A COMPOSITE
FUNCTION WHICH INCLUDES THE PHYSICAL FUNCTION AND AN
ARBITRARY REFERENCE FUNCTION**

Abstract of the Disclosure

A method for measuring a physical function forms a symmetric composite function by combining the physical function with a reference function. The method obtains a Fourier transform of the symmetric composite function. The method calculates an inverse Fourier transform of the obtained Fourier transform, wherein the calculated inverse Fourier transform provides information regarding the physical function. The physical function can be a nonlinearity profile of a sample with at least one sample surface. The physical function can alternatively be a sample temporal waveform of a sample optical pulse.

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